

Patent Claims:

1. Method for a motor vehicle with a regenerative and an anti-lock conventional brake system (ABS) for coordinating the application of the regenerative and the anti-lock system, wherein the regenerative brake system is switched off upon entry into an ABS control,  
c h a r a c t e r i z e d in that regenerative braking by means of the regenerative brake system upon termination of the ABS control or ABS control phase is admitted again in dependence on the respective driving situation and/or criteria representative of the braking demand and the instantaneous coefficient of friction, in a modified form compared to the regenerative braking operation prior to the entry into the ABS control mode.
2. Method as claimed in claim 1,  
c h a r a c t e r i z e d in that prior to the entry into ABS control, the demanded braking power, i.e. corresponding to the driver's demand, is generated by the regenerative brake system until the attainment of a maximum value depending on the regenerative brake system, while it is generated by the conventional brake system after entry into ABS control.
3. Method as claimed in claim 1 or 2,  
c h a r a c t e r i z e d in that the regenerative brake system is connected again after termination of an ABS control or an ABS control mode and after expiry of a predetermined time period after the termination of the ABS control, and the brake torque generated by the

regenerative brake system is limited to a predetermined limit value and the portion of the demanded brake torque exceeding the limit value is generated by the conventional brake system.

4. Method as claimed in claim 2,  
c h a r a c t e r i z e d in that the predetermined time period is in the order of some seconds, e.g. 1 to 3 seconds.
5. Method as claimed in claim 3 or 4,  
c h a r a c t e r i z e d in that the predetermined limit value is varied in dependence on the locking pressure level, i.e. on the braking pressure that prevails in the wheel brake upon termination of the ABS control.
6. Method as claimed in any one of claims 3 to 5,  
c h a r a c t e r i z e d in that the predetermined limit value is raised with a preset gradient until an allowable maximum portion of the demanded braking power is reached and the portion of the demanded brake torque exceeding the limit value is generated by the conventional brake system.
7. Method as claimed in claim 6,  
c h a r a c t e r i z e d in that following a predetermined waiting time after the attainment of the allowable maximum portion of the demanded braking power, a rise of the allowable maximum portion with a predetermined gradient is raised until the maximum output of the regenerative brake system is reached, and the portion of the demanded brake torque exceeding the braking power of

the regenerative brake system is generated by the conventional brake system.

8. Method as claimed in any one or more of claims 1 to 7, characterized in that in a vehicle with only one driven axle, the brake force distribution is shifted in favor of the driven axle when the demanded braking power of the driven axle can be generated by the regenerative brake system.
9. Method as claimed in any one or more of claims 1 to 8, characterized in that upon a new entry into an ABS control after a transition into phases with regenerative braking, the new transition into phases of regenerative braking is aggravated and/or delayed.